

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/782,998 B
Source: IFW/6
Date Processed by STIC: 09/07/2006

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 09/07/2006

PATENT APPLICATION: US/10/782,998B

TIME: 10:29:16

Input Set : N:\Cr4\09072006\J782998B.raw

Output Set: N:\CRF4\09062006\J782998B.raw

1 <110> APPLICANT: Itoh, Nobuya
 2 <120> TITLE OF INVENTION: Reductase Gene and Use of the Same
 3 <130> FILE REFERENCE: 600630-15US (562737)
 C--> 4 <140> CURRENT APPLICATION NUMBER: US/10/782,998B
 5 <141> CURRENT FILING DATE: 2004-02-20
 6 <150> PRIOR APPLICATION NUMBER: JP 2003-053568
 7 <151> PRIOR FILING DATE: 2003-02-28
 8 <160> NUMBER OF SEQ ID NOS: 14
 9 <170> SOFTWARE: PatentIn version 3.2
 11 <210> SEQ ID NO: 1
 12 <211> LENGTH: 251
 13 <212> TYPE: PRT
 14 <213> ORGANISM: Leifsonia sp.
 15 <400> SEQUENCE: 1

16	Met	Ala	Gln	Tyr	Asp	Val	Ala	Asp	Arg	Ser	Ala	Ile	Val	Thr	Gly	Gly
17	1			5					10						15	
18	Gly	Ser	Gly	Ile	Gly	Arg	Ala	Val	Ala	Leu	Thr	Leu	Ala	Ala	Ser	Gly
19			20			25						30				
20	Ala	Ala	Val	Leu	Val	Thr	Asp	Leu	Asn	Glu	Glu	His	Ala	Gln	Ala	Val
21			35			40						45				
22	Val	Ala	Glu	Ile	Glu	Ala	Ala	Gly	Gly	Lys	Ala	Ala	Ala	Leu	Ala	Gly
23		50				55					60					
24	Asp	Val	Thr	Asp	Pro	Ala	Phe	Gly	Glu	Ala	Ser	Val	Ala	Gly	Ala	Asn
25	65				70				75							80
26	Ala	Leu	Ala	Pro	Leu	Lys	Ile	Ala	Val	Asn	Asn	Ala	Gly	Ile	Gly	Gly
27				85				90						95		
28	Glu	Ala	Ala	Thr	Val	Gly	Asp	Tyr	Ser	Leu	Asp	Ser	Trp	Arg	Thr	Val
29			100					105						110		
30	Ile	Glu	Val	Asn	Leu	Asn	Ala	Val	Phe	Tyr	Gly	Met	Gln	Pro	Gln	Leu
31		115				120							125			
32	Lys	Ala	Met	Ala	Ala	Asn	Gly	Gly	Gly	Ala	Ile	Val	Asn	Met	Ala	Ser
33		130				135						140				
34	Ile	Leu	Gly	Ser	Val	Gly	Phe	Ala	Asn	Ser	Ser	Ala	Tyr	Val	Thr	Ala
35	145				150				155							160
36	Lys	His	Ala	Leu	Leu	Gly	Leu	Thr	Gln	Asn	Ala	Ala	Leu	Glu	Tyr	Ala
37			165					170						175		
38	Ala	Asp	Lys	Val	Arg	Val	Val	Ala	Val	Gly	Pro	Gly	Phe	Ile	Arg	Thr
39			180					185						190		
40	Pro	Leu	Val	Glu	Ala	Asn	Leu	Ser	Ala	Asp	Ala	Leu	Ala	Phe	Leu	Glu
41		195				200							205			
42	Gly	Lys	His	Ala	Leu	Gly	Arg	Leu	Gly	Glu	Pro	Glu	Glu	Val	Ala	Ser
43		210				215						220				
44	Leu	Val	Ala	Phe	Leu	Ala	Ser	Asp	Ala	Ala	Ser	Phe	Ile	Thr	Gly	Ser

RAW SEQUENCE LISTING

DATE: 09/07/2006

PATENT APPLICATION: US/10/782,998B

TIME: 10:29:16

Input Set : N:\Crf4\09072006\J782998B.raw

Output Set: N:\CRF4\09062006\J782998B.raw

```

45          225          230          235          240
46      Tyr His Leu Val Asp Gly Gly Tyr Thr Ala Gln
47          245          250
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 756
51 <212> TYPE: DNA
52 <213> ORGANISM: Leifsonia sp.
53 <220> FEATURE:
54 <221> NAME/KEY: CDS
55 <222> LOCATION: (1)..(756)
56 <400> SEQUENCE: 2
57      atg gct cag tac gac gtc gcc gac cgg tcc gcg atc gtg acc gga ggc      48
58      ggc tcg ggc atc ggg cgc gcc gtg gcg ctc act ctc gcg gcg agc ggc      96
59      gca gcc gtc ctc gtc acc gac ctg aac gag gag cac gcg cag gcc gtc      144
60      gtg gcc gag atc gag gcc gcg ggc ggt aag gcc gcc gcg ctc gcg ggc      192
61      gac gtg acc gac ccc cgc ttc ggc gag gcg agc gtc gcc ggg gcg aac      240
62      gct cta gcg ccc ctc aag atc gcg gtc aac aac gcg ggc atc ggc ggc      288
63      gag gcc gcc acg gtc ggc gac tac tcg ctc gac agc tgg cgc acg gtg      336
64      atc gag gtc aac ctc aac gcc gtg ttc tac ggg atg cag ccg cag ctg      384
65      aag gcc atg gcc gcc aac ggc ggc ggt gcg atc gtc aac atg gcg tcc      432
66      atc ctg gga agc gtc ggc ttc gcc aac tcg tcg gcc tac gtc acg gcc      480
67      aag cac gcg ctg ctc ggt ctc acc cag aac gcc gcg ctc gag tac gcc      528
68      gcc gac aag gtg cgc gtc gtc gcg gtc ggc ccc ggc ttc atc cgc acc      576
69      ccg ctc gtg gag gcc aac ctc tcc gcc gac gcg ctg gcg ttc ctc gag      624
70      ggc aag cac gcc ctc ggc cgc ctg ggc gag ccg gaa gag gtc gcc tcg      672
71      ctg gtc gcg ttc ctc gcc tcc gac gcc gcg agc ttc atc acc ggc agc      720
72      tac cac ctg gtg gac ggc ggc tac acc gcc cag tga      756
74 <210> SEQ ID NO: 3
75 <211> LENGTH: 20
76 <212> TYPE: DNA
77 <213> ORGANISM: Artificial sequence
78 <220> FEATURE:
79 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
80 <400> SEQUENCE: 3
81      atggctcagt acgacgtcgc      20
83 <210> SEQ ID NO: 4
84 <211> LENGTH: 20
85 <212> TYPE: DNA
86 <213> ORGANISM: Artificial Sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
89 <400> SEQUENCE: 4
90      tcactgggcg gtgtagccgc      20
92 <210> SEQ ID NO: 5
93 <211> LENGTH: 15
94 <212> TYPE: PRT
95 <213> ORGANISM: Leifsonia sp.
96 <400> SEQUENCE: 5
97      Ala Gln Tyr Asp Val Ala Asp Arg Ser Ala Ile Val Thr Gly Gly

```

RAW SEQUENCE LISTING

DATE: 09/07/2006

PATENT APPLICATION: US/10/782,998B

TIME: 10:29:16

Input Set : N:\Crf4\09072006\J782998B.raw

Output Set: N:\CRF4\09062006\J782998B.raw

```

98          1          5          10          15
100 <210> SEQ ID NO: 6
101 <211> LENGTH: 12
102 <212> TYPE: PRT
103 <213> ORGANISM: Leifsonia sp.
104 <400> SEQUENCE: 6
105      Ile Ala Val Asn Asn Ala Gly Ile Gly Gly Glu Ala
106      1          5          10
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 20
110 <212> TYPE: DNA
111 <213> ORGANISM: Artificial Sequence
112 <220> FEATURE:
113 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
114 <220> FEATURE:
115 <221> NAME/KEY: misc_feature
116 <222> LOCATION: (12)..(12)
117 <223> OTHER INFORMATION: n is inosine
118 <220> FEATURE:
119 <221> NAME/KEY: misc_feature
120 <222> LOCATION: (15)..(15)
121 <223> OTHER INFORMATION: n is a, c, g, or t
122 <400> SEQUENCE: 7
W--> 123      cartaygayg tngcngahmg                                20
125 <210> SEQ ID NO: 8
126 <211> LENGTH: 20
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
131 <220> FEATURE:
132 <221> NAME/KEY: misc_feature
133 <222> LOCATION: (6)..(6)
134 <223> OTHER INFORMATION: n is inosine
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: (9)..(9)
138 <223> OTHER INFORMATION: n is a, c, g, or t
139 <220> FEATURE:
140 <221> NAME/KEY: misc_feature
141 <222> LOCATION: (18)..(18)
142 <223> OTHER INFORMATION: n is a, c, g, or t
143 <400> SEQUENCE: 8
W--> 144      ccdatnccng crttrttnac                                20
146 <210> SEQ ID NO: 9
147 <211> LENGTH: 304
148 <212> TYPE: DNA
149 <213> ORGANISM: Leifsonia sp.
150 <400> SEQUENCE: 9

```

RAW SEQUENCE LISTING

DATE: 09/07/2006

PATENT APPLICATION: US/10/782,998B

TIME: 10:29:16

Input Set : N:\Crf4\09072006\J782998B.raw

Output Set: N:\CRF4\09062006\J782998B.raw

```

151      gaattcgatt cagtatgatg tggctgatcg gtccgcgacg gtgaccggag gcgggtcagg,      60
152      catcggggcg gccgtggcg tcaactctcg gccgagcggc gcagccgtcc tcgtcaccga      120
153      cctgaacgag gagcacgcgc aggccgtcgt ggccgagatc gagggccgcgg gcggtaaggc      180
154      cgccgcgctc gcgggcgacg tgaccgaccc cgcgttcggc gaggcgagcg tcgccggggc      240
155      gaacgctctc gcgcccctca agatcgcggt caataacgca ggcacgcgaa tcactagtga      300
156      attc                                                                    304
158 <210> SEQ ID NO: 10
159 <211> LENGTH: 304
160 <212> TYPE: DNA
161 <213> ORGANISM: Leifsonia sp.
162 <400> SEQUENCE: 10
163      gaattcgatt cagtatgatg tggctgatcg gtccgcgacg gtgaccggag gcgggtcagg      60
164      catcggggcg gccgtggcg tcaactctcg gccgagcggc gcagccgtcc tcgtcaccga      120
165      cctgaacgag gagcacgcgc aggccgtcgt ggccgagatc gagggccgcgg gcggtaaggc      180
166      cgccgcgctc gcgggcgacg tgaccgaccc cgcgttcggc gaggcgagcg tcgccggggc      240
167      gaacgctctc gcgcccctca agatcgcggt caataacgca ggcacgcgaa tcactagtga      300
168      attc                                                                    304
170 <210> SEQ ID NO: 11
171 <211> LENGTH: 26
172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
176 <400> SEQUENCE: 11
177      ggagatttcc atggctcagt acgacg                                                                    26
179 <210> SEQ ID NO: 12
180 <211> LENGTH: 20
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
185 <400> SEQUENCE: 12
186      gggctgcagc ccggctcactg                                                                    20
188 <210> SEQ ID NO: 13
189 <211> LENGTH: 29
190 <212> TYPE: DNA
191 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
194 <400> SEQUENCE: 13
195      gctgcagcga tcatcatagc aggagtcac                                                                    29
197 <210> SEQ ID NO: 14
198 <211> LENGTH: 31
199 <212> TYPE: DNA
200 <213> ORGANISM: Artificial Sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Designed oligonucleotide primer for PCR
203 <400> SEQUENCE: 14
204      acaagcttgt gaattcaaca ccagtcagct c                                                                    31

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/07/2006
PATENT APPLICATION: US/10/782,998B TIME: 10:29:17

Input Set : N:\Crf4\09072006\J782998B.raw
Output Set: N:\CRF4\09062006\J782998B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:7; N Pos. 12,15
Seq#:8; N Pos. 6,9,18

VERIFICATION SUMMARY

DATE: 09/07/2006

PATENT APPLICATION: US/10/782,998B

TIME: 10:29:17

Input Set : N:\Crf4\09072006\J782998B.raw

Output Set: N:\CRF4\09062006\J782998B.raw

L:4 M:270 C: Current Application Number differs, Wrong Format

L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0

L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0